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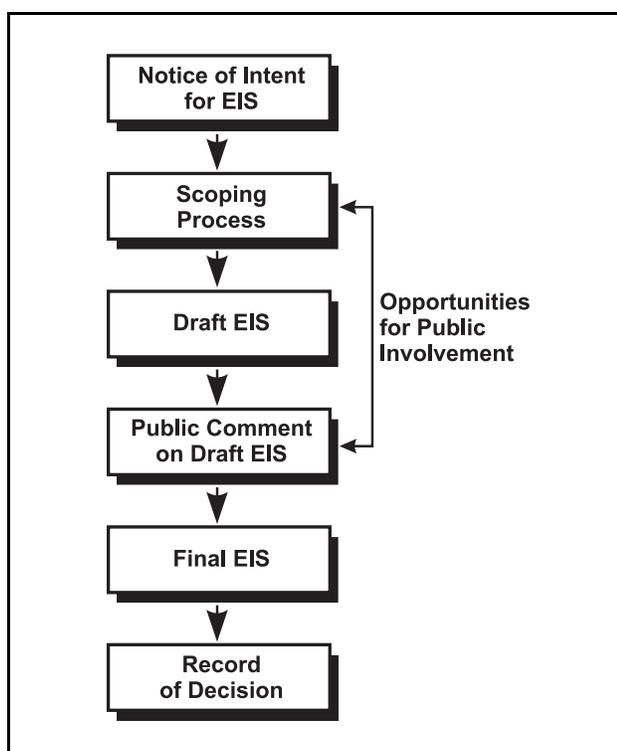
## APPENDIX F THE PUBLIC SCOPING PROCESS

### F.1 SCOPING PROCESS DESCRIPTION

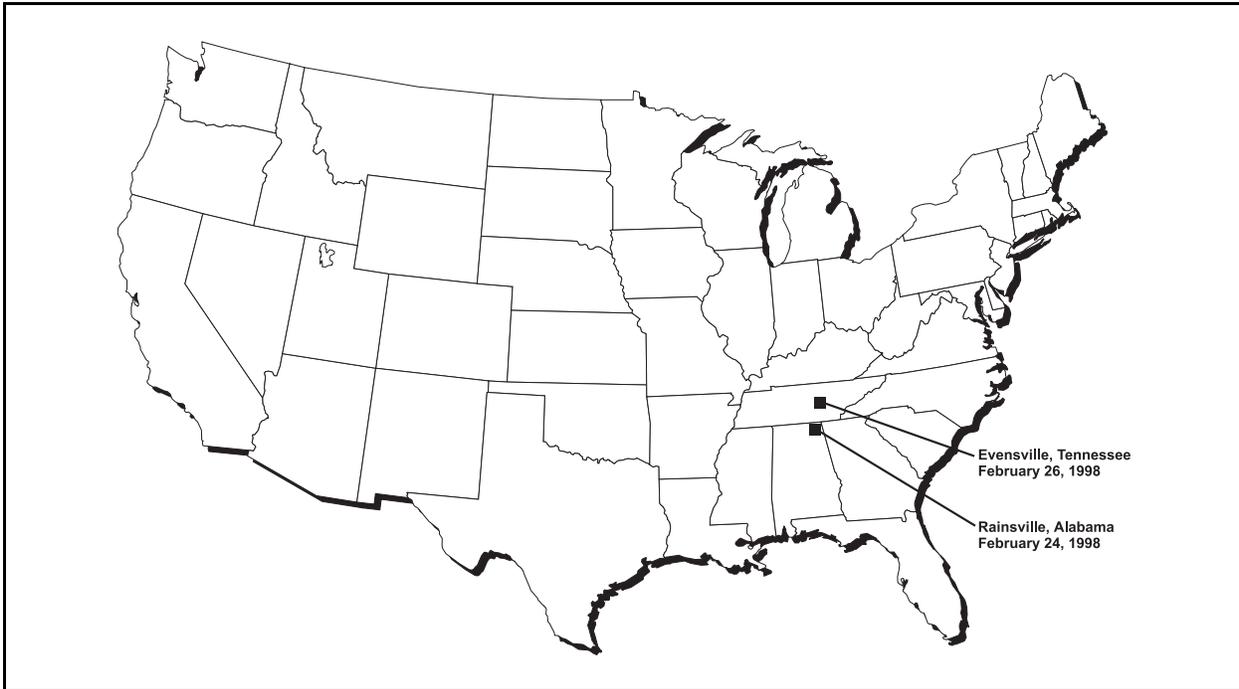
As a preliminary step in the development of an environmental impact statement (EIS), regulations established by the Council on Environmental Quality (40 CFR 1501.7) and the U.S. Department of Energy (DOE) require “an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action.” The purpose of this scoping process is: (1) to inform the public about a proposed action and the alternatives being considered and (2) to identify and/or clarify issues that are relevant to the EIS by soliciting public comments.

On January 16, 1998, DOE published a Notice of Intent in the *Federal Register* concerning its proposal to produce tritium in one or more nuclear power plants owned and operated by the Tennessee Valley Authority (TVA). During the National Environmental Policy Act (NEPA) process, there are opportunities for public involvement (**Figure F-1**). The Notice of Intent listed the issues initially identified by DOE for evaluation in the EIS. Public citizens, civic leaders, and other interested parties were invited to comment on these issues and to suggest additional issues that should be considered in the EIS. The Notice of Intent informed the public that comments on the proposed action could be communicated via U.S. mail, a special DOE web site on the Internet, a toll-free phone line, a toll-free fax line, or in person at public meetings to be held near the TVA plant sites.

Two public meetings were held near the TVA nuclear power plants proposed for tritium production (**Figure F-2**). The first was held on February 24, 1998, in Rainsville, Alabama, near the partially completed Bellefonte Nuclear Plant site. More than 800 persons, mostly from regional communities, attended the Rainsville meeting. The second meeting was held in Evensville, Tennessee, near the Watts Bar and Sequoyah Nuclear Power Plants, on February 26, 1998. An estimated 400 persons attended this meeting. A majority of the attendees were residents of communities located near the two TVA plants and several attendees were from cities such as Nashville and Knoxville, Tennessee.



**Figure F-1 NEPA Process**



**Figure F-2 Public Scoping Meeting Locations and Dates (1998)**

As a result of previous experience and positive responses from attendees of other DOE/NEPA public meetings and hearings, DOE chose an interactive format for the scoping meetings. Each meeting began with a presentation by a DOE representative who explained the proposed tritium production plan. Afterwards, an impartial facilitator opened the floor to questions, comments, and concerns from the audience. DOE and TVA personnel were available to respond to the questions and comments as needed. While verbatim recordings or transcripts of the meetings were not produced, trained note-takers recorded the substance of each public comment. In addition, the public was encouraged to submit written or verbal comments either during the meetings or via letters, the DOE Internet web site, the toll-free phone line, or the toll-free fax line until the end of the scoping period on March 20, 1998.

It should be noted that, for EIS public scoping purposes, a comment is defined as a single statement or opinion concerning a specific issue. Any statement may contain many separate comments. Most of the verbal and written public statements submitted during the EIS scoping period contained multiple comments on various individual issues.

## **F.2 SCOPING PROCESS RESULTS**

Approximately 700 comments were received from citizens, interested groups, and Federal, state, and local officials during the public scoping period, including 156 verbal comments made during the public meetings. The remainder of the comments (513) were submitted at the public meetings in written form, or via mail, Internet, fax, or phone over the entire scoping period. Commentors who spoke at the public meetings often read from written statements that were later submitted during or after the meetings. Where this occurred, each comment provided by an individual commentor in both verbal and written form was counted as a single comment. In addition to the comments, four petitions totaling 1,586 signatures were submitted in support of completing the Bellefonte plant for tritium production purposes.

The majority of the verbal and written comments received during the public scoping period favored producing tritium at one or more of TVA's nuclear power plants. Comments from residents of northern Alabama were particularly supportive of completing the Bellefonte plant for tritium production. Reasons given for this support mostly involved potential socioeconomic benefits such as job creation, a greater abundance of inexpensive electricity, attraction of new businesses to the area, and increased local revenues.

Many of the comments received from residents of the local areas near the TVA plants also communicated an understanding that the United States will begin producing tritium in the near future—either at the Savannah River Site (the accelerator option) or at one of TVA's nuclear power plants. These commentors expressed confidence in the safety of the TVA plants and the capabilities of area workers to provide the skills needed for tritium production. They also said they believe nuclear power plants are a more sensible choice for tritium production because reactors are a proven technology and the total project cost would be less than the cost of building an accelerator.

A significant number of other comments received during the scoping period opposed tritium production in general and the use of a nuclear power plant for this purpose in particular. This group disagreed with the Presidential and Congressional decision to produce tritium and denied there is any real defense-related need for new tritium production because they believe other options are available. Among the options cited were unilateral disarmament, commercial purchases, recycling the material from deactivated nuclear weapons, and/or extending the half-life of tritium.

Several commentors voiced concerns about the environmental, health, and safety risks they believe are inherent to tritium production. DOE representatives were urged to thoroughly evaluate the potential consequences of the proposed action on local water resources and the health and safety of area residents and wildlife. Concerns also were raised about the safety of TVA's nuclear power plants and how the security of the plants would be managed if tritium production were to begin.

Waste production and disposal was another issue. Some commentors correctly stated that tritium production in a nuclear reactor would increase the amount of spent fuel wastes generated. Questions were posed as to how this additional waste would be dealt with, both on site and in the long term.

Many commentors also viewed the U.S. Government's decision to produce tritium as a violation of its own policies and commitments under the international Nonproliferation and Strategic Arms Limitation Treaties. They accused the government of hypocrisy and asserted that tritium production in a commercial light water reactor (CLWR) would blur the historical line between U.S. civilian and military nuclear programs. This action, they warned, would encourage other countries to use their own commercial plants to produce weapons materials and to increase their weapons stockpiles.

The public comments and materials submitted during the scoping period were carefully logged as they were received and placed in the Administrative Record of this EIS. Their disposition is described in the next section.

### **F.3 COMMENT DISPOSITION AND ISSUE IDENTIFICATION**

Comments received during the scoping period were systematically reviewed by the EIS preparers. Where possible, comments on similar or related topics were grouped under comment categories as a means of summarizing the comments. An attempt was made to avoid duplication in counting the number of comments received; however, comments submitted in both written and verbal form may have been counted twice in some cases. The comment categories were used to identify specific issues of public concern. After the issues were identified, they were evaluated to determine whether they fell within or outside the scope of the EIS. Some

issues were found to be already “in scope,” i.e., they were among the EIS issues already identified by DOE for inclusion in the EIS. **Table F-1** lists these issues along with their EIS references.

**Table F-1 Issues Already Included in the EIS (In Scope)**

<i>Issues</i>	<i>No. of Comments</i>	<i>EIS References</i>
Use of commercial nuclear power reactors to produce tritium will blur the line between civilian and military programs and will impact U.S. nuclear nonproliferation efforts	93	Section 1.5.4
Socioeconomic benefits such as job creation, new business growth, and increased TVA payments in-lieu-of-taxes to Jackson County as a result of using any of the TVA plants for tritium production	142	Section 5.2.3.8
Tritium’s importance to national security	24	Chapter 1 Chapter 2
Environmental, safety, and health impacts of tritium production, including potential for increased rates of breast cancer, childhood leukemia, and birth defects	52	Sections 5.2.1.9 5.2.2.9 5.2.3.9 Appendix C
Section 7 Consultation with the National Wildlife Service	1	Sections 5.2.1.6 5.2.2.6 5.2.3.6
Frequency and public notification of water/soil testing near the Bellefonte plant	1	Chapter 6
Handling and shipping (transportation) of TPBARs and radioactive waste and associated escort requirements	8	Section 5.2.8 Appendix E
Safety record of TVA’s nuclear power plants	22	Chapter 6
Reactor accident analyses	18	Sections 5.2.1.9 5.2.2.9 5.2.3.9 Appendix D
Impacts of spent fuel production and interim storage	13	Section 5.2.6
Final, long-term disposition of spent fuel rods if no deep geologic repository is available and the fuel pools are filled	2	Section 3.2.1
Additional plant security requirements	15	Section 5.2.10
Potential safety impacts of shortening the refueling schedule	2	Section 5.2.9
Processing tritium-producing burnable absorber rods	1	Appendix A
Impacts of tritium production on reactor decommissioning plans	1	Section 5.2.5
Need for separate EISs for the Bellefonte plant, one for tritium production and one for completion	4	Section 1.5.1.3
Support for conversion of the Bellefonte plant to a natural gas facility	2	Section 1.5.2.3
Use of excess electricity produced by tritium production at the Bellefonte plant	2	Section 5.4.2
Rationale for making the accelerator option the “no action” alternative	4	Section 3.2.4

One additional issue, the avoidance of greenhouse gases as a result of tritium production in a reactor instead of an accelerator, was added to the scope of the EIS as a result of the public scoping process. (See Table F–2.)

**Table F–2 Issues Added to the Scope of the EIS**

<i>Issues</i>	<i>No. of Comments</i>	<i>EIS References</i>
Avoidance of greenhouse gases as a result of tritium production in a reactor instead of an accelerator	8	Section 5.2.11

Many of the public issues were not analyzed for a specific reason or were determined to be outside the scope of the EIS. These issues are listed in Table F–3. Corresponding responses from DOE also are provided in Table F–3 to explain why each issue was not analyzed.

**Table F–3 Issues Considered to be Out of Scope or Raised But Not Analyzed**

<i>Issues</i>	<i>No. of Comments</i>	<i>DOE Responses</i>
<b>Tritium Production</b>		
Tritium production is not needed because: (1) there are reserve stockpiles, (2) it can be recycled from deactivated nuclear weapons and/or purchased, or (3) the half-life can be extended.	33	<p>As stated in Section 1.3.3 of the CLWR EIS, reductions in the size of the nuclear weapons stockpile, brought on by international arms control agreements, have enabled DOE to fulfill its tritium requirements by recycling tritium removed from dismantled weapons. This source of tritium is presently being utilized and has already been factored into the tritium requirement projections, which indicate a need for a new supply of tritium by approximately 2005.</p> <p>DOE has considered the purchase of tritium from other sources, including foreign nations, and has determined that the uncertainties associated with obtaining tritium from foreign sources render this alternative unreasonable for an assured long-term supply. Accordingly, as discussed in Section 3.1.3 of the Tritium Supply and Recycling Programmatic EIS (DOE 1995), DOE considered this alternative but eliminated it from detailed study.</p> <p>DOE is aware of and has reviewed laboratory research on extending the half-life of isotopes similar to tritium. To date, such a process does not exist and the likelihood of developing such a process in sufficient time to reduce the need for tritium is too low to render this a credible alternative. DOE will, however, continue to monitor results from such research.</p> <p>As discussed in Chapter 2 of the CLWR EIS, DOE presently maintains a strategic reserve of tritium. This reserve contains a quantity of tritium maintained for emergencies and contingencies, and similar to tritium available from dismantled weapons, has been factored into the tritium requirement projections which indicate a need for a new supply of tritium by approximately 2005.</p>
Tritium production is not needed because nuclear arms reduction treaties will allow the United States to deactivate and dismantle its nuclear weapons as their tritium load decays.	4	<p>The need for tritium is explained in Chapter 2 of the CLWR EIS. As explained in Chapter 2, the 1996 Nuclear Weapons Stockpile Plan and an accompanying Presidential Decision Directive mandate that new tritium must be available by approximately 2005 if a CLWR is the selected option for tritium production. While it is true that recent international arms control agreements have caused the nuclear weapons stockpile to be reduced in size, these reductions are accounted for in the Presidential requirements. While future arms control reductions may change the requirements, DOE is responsible for meeting the current requirements set forth by the President.</p>

<i>Issues</i>	<i>No. of Comments</i>	<i>DOE Responses</i>
<p>Reactor tritium production relies on a proven technology and is more sensible and economical than the accelerator option.</p>	<p>21</p>	<p>The purpose of the CLWR EIS is to assess the environmental impacts associated with tritium production in one or more CLWRs. Relative comparisons between the CLWR option and the accelerator option have previously been documented in the Record of Decision for the Tritium Supply and Recycling Programmatic EIS (DOE 1995). As a tiered document from that Programmatic EIS, the CLWR EIS does not purport to compare the CLWR and the accelerator for tritium production.</p>
<p>An international agreement is needed to halt tritium production as a means of using tritium's decay rate to pace a reciprocal build-down of nuclear weapons.</p> <p>DOE should: (1) develop a list of no more than three commercial reactors that could be used for tritium production only as a contingency source in case of Congressionally declared war or another national emergency [ref. Section 108 of the Atomic Energy Act], (2) obtain tritium only by purchasing irradiation services at one of these reactors under such emergency circumstances, and (3) use the reactor only under defined conditions that preserve the principle of separating civilian and military nuclear activities (i.e., the reactor should not generate electricity for sale while being used for tritium production).</p>	<p>1</p> <p>1</p>	<p>There are currently no international agreements that prohibit tritium production. In accordance with national security requirements set forth by the President, DOE is responsible for producing the tritium required to support the nation's nuclear deterrent. Future international agreements related to tritium production are speculative and beyond the scope of the CLWR EIS.</p> <p>The need for tritium is explained in Chapter 2 of the CLWR EIS. As explained in Chapter 2, the 1996 Nuclear Weapons Stockpile Plan and an accompanying Presidential Decision Directive mandate that new tritium must be available by approximately 2005 if a CLWR is the selected option for tritium production. The CLWR EIS is being prepared in accordance with the national security requirements set forth by the President.</p>
<p>DOE should more clearly articulate the policy options for tritium production to the public; e.g., use of reactors as either a primary or contingency source, purchasing a commercial reactor or merely purchasing irradiation services from a commercial reactor, etc. [the comment refers to information found in the Programmatic EIS].</p> <p>Couldn't nuclear weapons be maintained without tritium?</p>	<p>1</p> <p>2</p>	<p>The policy options for tritium production are explained in the Tritium Supply and Recycling Programmatic EIS (DOE 1995). The purpose of the CLWR EIS is to assess the environmental impacts associated with tritium production in one or more CLWRs, not debate policy options.</p> <p>All weapons in the existing stockpile require tritium to function as designed. Section 1.3.2 of the CLWR EIS describes how tritium is used in the modern nuclear weapon. Section 3.1.3 of the Tritium Supply and Recycling Programmatic EIS (DOE 1995) provides a thorough discussion of why redesigning weapons with less or no tritium is not a reasonable alternative.</p>
<p>How many weapons does the United States really need?</p>	<p>2</p>	<p>The number of United States nuclear weapons needed is set forth by the Nuclear Weapons Stockpile Plan and an accompanying Presidential Decision Directive.</p>

<i>Issues</i>	<i>No. of Comments</i>	<i>DOE Responses</i>
<p>The United States has called for a negotiated ban on production of fissile materials for weapons. While not covered under this ban, operation of tritium production facilities would complicate treaty verification because the facilities could be used for clandestine production of plutonium, but will not be subject to intrusive verification measures because of their military significance. How would appropriate safeguards be employed at a commercial tritium production reactor?</p> <p>Could the K-Reactor at DOE's Savannah River Site in South Carolina be refurbished and used for tritium production if the serious safety issues were corrected?</p>	<p>1</p> <p>2</p>	<p>Safeguard and security provisions of TVA and of DOE have been reviewed and found to be sufficiently protective of both Federal property and employees and the general public. Section 5.2.10 of the CLWR EIS provides additional information related to safeguards and security issues.</p> <p>The option of utilizing the K-Reactor, located at the Savannah River Site in South Carolina, along with other existing DOE reactors or accelerators, was evaluated but dismissed from further consideration in the Tritium Supply and Recycling Programmatic EIS (Section 3.1.3) (DOE 1995). In the early 1990s, when tritium supply needs were much greater, DOE not only considered putting the K-Reactor back on line, but had an extensive and costly effort underway to restart the K-Reactor. Unfortunately, the age of this facility and the magnitude of the environmental and safety upgrades required for this task proved too great, and in 1994, the K-Reactor was placed in a "cold stand-by" status with no provisions for restart. The reduced tritium needs of today make the K-Reactor alternative even less attractive.</p>
<p>Why is new reactor-produced tritium needed in 2005, but accelerator-produced tritium is not needed until 2007?</p> <p>Why doesn't the government just purchase a commercial reactor for tritium production?</p> <p>Would hydrogen ignitors be used in a tritium production plant?</p>	<p>5</p> <p>5</p> <p>1</p>	<p>The Presidential Decision Directive that accompanies the 1996 Nuclear Weapons Stockpile Plan mandates that new tritium must be available by approximately 2005 if a CLWR is the selected option for tritium production, and approximately 2007 if the accelerator is the selected option. The reason the year 2007 is mandated for the accelerator is because that is the earliest date by which the accelerator could be built and begin operation. In such a case, tritium requirements from 2005 until 2007 would have to be met by dipping into the tritium reserve shown on Figure 2-1 of this CLWR EIS. The tritium reserve would then be replenished by producing tritium quantities greater than the decay requirements.</p> <p>Concurrent with the preparation of the CLWR EIS, DOE is evaluating the feasibility of various CLWR alternatives through a procurement process. Through that process, DOE expects to enter into a contract/interagency agreement with the owner/operator of one or more commercial reactors for the purpose of producing tritium. Such a contract/interagency agreement could result in DOE purchasing CLWR irradiation services and/or purchasing a CLWR. In response to the procurement request, none of the CLWR owners/operators proposed selling a CLWR to DOE. Instead, only irradiation services have been proposed. Thus, it now appears likely that DOE will purchase irradiation services only.</p> <p>Hydrogen ignitors are currently used in Watts Bar and Sequoyah. The use of hydrogen ignitors at a reactor facility is independent of tritium production.</p>

<i>Issues</i>	<i>No. of Comments</i>	<i>DOE Responses</i>
If a second major use for tritium is identified, now or in the future, the safest course would be construction of a new tritium production facility at DOE's Savannah River Site in South Carolina.	1	DOE is addressing only that amount of tritium necessary to support the U.S. nuclear weapons stockpile. Based on the analysis of the Tritium Supply and Recycling Programmatic EIS DOE, in the December 1995 Record of Decision, decided to pursue a dual-track approach on the two most promising tritium-supply alternatives: (1) to initiate purchase of an existing commercial reactor (operating or partially complete) or irradiation services with an option to purchase the reactor for conversion to a defense facility; and (2) to design, build, and test critical components of an accelerator for tritium production. DOE will select one of these alternatives as the primary source for tritium. The other alternative, if feasible, would continue to be developed as a backup tritium source.
The EIS should address the additional complications of loading and unloading the boron isotope or lithium aluminate cores, their subsequent unloading, and the final tritium separation processes.	2	The environmental impacts associated with the fabrication of the TPBARs are addressed in Section 5.2.7 of the CLWR EIS. DOE has already analyzed the environmental impacts associated with the unloading and the final tritium extraction process in the Tritium Extraction Facility EIS (DOE 1998, DOE 1999). A summary of the environmental impacts associated with the Preferred Alternative in the Tritium Extraction Facility EIS may be found in Section 5.3 of the CLWR EIS.
DOE should not be doing this EIS because they are overcommitted to other activities, their management is inadequate, their staffing and technical expertise are insufficient, and they have contaminated every site they have managed.	11	DOE is fully committed to carrying out all of its responsibilities in full compliance with all Federal, state, and local laws and requirements.
Tritium should not be produced by anyone who thinks about the future of humanity. Everyone involved in creating these weapons of mass destruction should quit their jobs.	1	The issue of an individual's employment choice is beyond the scope of the EIS.
<b>Environment, Safety, and Health</b>		
The EIS should evaluate global environmental impacts resulting from U.S. tritium production.	8	The CLWR EIS evaluates the direct, indirect, and cumulative environmental impacts associated with producing tritium at one or more CLWRs. The only reasonable foreseeable global environmental impacts that are assessed concern impacts to global warming. DOE is unaware of any other global environmental impacts associated with tritium production.
The EIS should evaluate the environmental impacts of tritium production in other countries with similar programs.	3	The CLWR EIS evaluates the direct, indirect, and cumulative environmental impacts associated with producing tritium at one or more CLWRs. Environmental impacts associated with tritium production in other countries is beyond the scope of the CLWR EIS.
The EIS should address the environmental impacts of the full life cycle of the tritium-producing fuel rods, from mining through final disposal.	3	DOE has focused the analysis in the CLWR EIS on the proposed action in accordance with the requirements of NEPA, Council on Environmental Quality requirements, and the DOE NEPA regulations. From a life cycle cost perspective, the analyses of costs are not part of the EIS process. Accordingly, analyses of costs are not included in the CLWR EIS. DOE does, however, consider costs in its final decision, and in this instance, has determined that sufficient quantities of the materials required for the fabrication of the TPBARs are openly available and that the cost of mining and finishing of such products is already reflected in their cost. Since sufficient source material is available already, the provision of source materials (e.g., mining) is not analyzed. The disposition of TPBARs is addressed in the EIS for the construction and operation of a Tritium Extraction Facility at the Savannah River Site. (See Section 1.5.2.2.)

<i>Issues</i>	<i>No. of Comments</i>	<i>DOE Responses</i>
<b>Waste</b>		
The wastes generated by tritium production should be placed in the backyards of those who make the decisions and Congress.	1	Any wastes generated as a result of activities addressed by the CLWR EIS will be managed in accordance with all applicable Federal and state regulations and DOE Orders.
Plutonium should not be brought for disposal to northern Alabama.	1	DOE has no plans to utilize plutonium in the CLWR Tritium Program. The CLWR Tritium Program would utilize nonradioactive lithium targets to be placed into the normal reactor cycle, with no change in normal operations. No plutonium would be generated in these targets. Although the normal operation of a commercial reactor does generate small quantities of plutonium as an integral part of the spent nuclear fuel, such spent nuclear fuel is presently being stored at commercial reactor sites for ultimate disposal at a national repository. DOE is presently considering only one site for the location of such a repository, Yucca Mountain, Nevada. DOE has no plans to site such a repository in the State of Alabama.
<b>Socioeconomics</b>		
The EIS should evaluate the socioeconomic benefits of completing the Bellefonte plant, such as abundant electricity and reduced power rates.	8	The CLWR EIS evaluates the environmental impacts associated with completing construction of one or both of the Bellefonte plants and operating them for tritium production. Socioeconomic impacts are assessed, including impacts associated with population and employment, housing, schools, and tax revenues. The environmental impacts associated with electricity production are also assessed.
The EIS should evaluate the potential economic consequences to ratepayers from extended outages.	2	There are no extended outages expected from tritium production at any of the reactor plant alternatives. Consequently, no economic consequences are expected. As a matter of contract law, the contract/interagency agreement between DOE and TVA would be expected to provide a mechanism for addressing any cost issues associated with unexpected extended outages. The CLWR EIS does provide a sensitivity analysis of shortening a reactor's fuel cycle from 18 to 12 months, but no socioeconomic consequences are envisioned.
It is unfair for the government to subsidize TVA; this proposal is just an attempt to help TVA resolve its debts.	6	Concurrent with the preparation of the CLWR EIS, DOE is evaluating the feasibility of various CLWR alternatives through a procurement process. That process, which was based on the policy of full and open competition, has been conducted in accordance with all applicable laws, and was open to all owners/operators of pressurized CLWRs. The proposals from TVA for producing tritium using existing and partially completed reactors were the only bids determined to be responsive to the requirements contained in the request for proposals.
Area utilities will oppose using government funding to help TVA complete a competitive nuclear power plant at Bellefonte.	1	The opposition or support of area utilities to the alternatives in the CLWR EIS is beyond the scope of the EIS.
Ratepayers who are against nuclear weapons should not be forced to pay for tritium production.	6	DOE does not anticipate costs being passed on to rate payers, since DOE will be paying for services.
Will tritium production at a TVA power plant require any hydro-pumped storage?	1	No.
<b>Costs</b>		
How cost-effective is tritium production in a commercial nuclear power plant for U.S. taxpayers? How do the costs compare with the accelerator option?	38	Costs are beyond the scope of the EIS. Relative cost comparisons between a CLWR and an accelerator have previously been documented in the Record of Decision for the Tritium Supply and Recycling Programmatic EIS (DOE 1995).

<i>Issues</i>	<i>No. of Comments</i>	<i>DOE Responses</i>
Who will cover the costs of power outages or identification of safety problems resulting from the shorter refueling cycle?	5	Costs are beyond the scope of the EIS. Additionally, there is no proposal to shorten the fuel cycle of any reactor that would produce tritium. For completeness, the CLWR EIS does provide a sensitivity analysis of shortening a reactor's fuel cycle from 18 to 12 months. That sensitivity analysis is provided as a contingency to address the situation of maximizing tritium production in a reactor. Such a situation is not currently expected or proposed. As a matter of contract law, the contract/interagency agreement between DOE and TVA would be expected to provide a mechanism for addressing any cost issues associated with shortening a reactor's fuel cycle from 18 to 12 months.
<p>If Bellefonte is completed for tritium production, who will pay for hazardous materials training and equipment?</p> <p>The EIS should include cost analyses for tritium production at each TVA reactor plant.</p> <p>DOE should release the report from the accounting firm of Putnam, Hayes, &amp; Bartlett, which assessed the costs of various options for tritium production.</p> <p>The EIS should explain the total cost of completing Bellefonte and the difficulty of obtaining Congressional appropriations for this purpose.</p>	<p>3</p> <p>3</p> <p>1</p> <p>3</p>	<p>Costs are beyond the scope of the EIS. However, DOE does not expect tritium production to change the requirements for hazardous material training or equipment.</p> <p>Costs are beyond the scope of the EIS. However, concurrent with the preparation of the CLWR EIS, DOE is evaluating the feasibility of the various CLWR alternatives through a procurement process. Through that process, DOE expects to enter into a contract/interagency agreement with TVA for the purpose of producing tritium. Once a contract/interagency agreement is reached, the terms would be made public, as appropriate.</p> <p>The Putnam, Hayes, and Bartlett report is available to anyone who wishes to request that report from DOE, DP-62.</p> <p>The cost to complete the Bellefonte plant is beyond the scope of the CLWR EIS. Through the procurement process, DOE expects to enter into a contract/interagency agreement with TVA for the purpose of producing tritium. Once a contract/interagency agreement is reached, the terms would be made public, as appropriate. The issue of obtaining Congressional appropriations is beyond the scope of the EIS. While it is true that Congressional appropriations will have to be made for any of the CLWR EIS alternatives, DOE will pursue such appropriations independent of the EIS process.</p>
<b>Nuclear Weapons</b>		
The EIS should explain whether new [nuclear weapons] designs or prototypes are being considered and whether international nonproliferation treaties prohibit the manufacture of new nuclear weapons.	2	As stated in Section 1.3.1 of the CLWR EIS, the United States is no longer producing new-design nuclear weapons. Since the end of the Cold War, the United States has significantly reduced the size of its nuclear weapons stockpile and DOE has dismantled more than 8,000 nuclear weapons. At the present time, the United States is further downsizing the nuclear weapons stockpile consistent with the terms of the START I Treaty, and DOE is continuing dismantlement. The United States has ratified the START II Treaty and is hopeful that Russia will do likewise. DOE acknowledges that further multilateral reductions in the United States' nuclear weapons stockpile could occur. However, the negotiations required for such reductions are likely to stretch well into the next century. Therefore, a new supply source of tritium is required to assure the reliability of the stockpile. Such a program is consistent with, and fully supportive of, the commitments of the United States under the terms of the START I Treaty, the START II Treaty, and Article VI of the Nonproliferation Treaty.

<i>Issues</i>	<i>No. of Comments</i>	<i>DOE Responses</i>
<b>EIS Process</b>		
The EIS process is inadequate; it does not address all the risks.	16	The EIS process is performed in accordance with all applicable laws and regulations. The purpose of the CLWR EIS is to assess the direct, indirect, and cumulative environmental impacts associated with tritium production in one or more CLWRs.
Why were additional scoping meetings not held in other areas?	11	Scoping meetings were held at all locations where DOE determined that there was significant interest to warrant public input related to the potential for environmental impacts from CLWR tritium production. This resulted in scoping meetings near each of the reactor sites that were determined to be a reasonable alternative in the CLWR EIS. The scoping process allows for comments from anyone at any location.
Other Federal agencies, such as the U.S. Environmental Protection Agency and the U.S. Department of Defense, should be involved in preparing this EIS.	2	In accordance with the Council on Environmental Quality Guidelines and DOE's NEPA regulations for the preparation of a NEPA document, the U.S. Department of Defense, as well as other major Federal agencies, were notified of the opportunity to participate as a cooperating agency in the preparation of the CLWR EIS. TVA was the only Federal agency that requested, and was granted, designation as a cooperating agency. The U.S. Department of Defense has a vested interest in DOE activities in assuring the long-term supply of tritium and is briefed as to the status of the Tritium Project Office, including the analysis being conducted for the CLWR EIS, on a regular basis. Although EPA did not choose to participate as a cooperating agency in the preparation of the CLWR EIS, EPA will review the adequacy of the EIS and provide DOE with its comments as to the adequacy of the EIS in accordance with the Council on Environmental Quality guidelines.
The NRC should be fully involved in this EIS process from the beginning.	3	In accordance with the Council on Environmental Quality Guidelines and the DOE NEPA regulations for the preparation of a NEPA document, the NRC was notified of its opportunity to participate as a cooperating agency in the preparation of the CLWR EIS, and did not elect to participate. The CLWR EIS addresses DOE activities for the production of tritium in a commercial reactor. Any commercial reactors participating in the CLWR Tritium Program would be required to obtain a license amendment from the NRC. Prior to the production of any tritium in a commercial reactor, the NRC would be the responsible agency for conducting any NEPA analysis required on the part of specific commercial reactors participating in the CLWR Tritium Program.
The EIS process should be delayed until completion of the tests of the tritium-producing rods at Watts Bar in 1999.	9	DOE has sufficient experience and confidence in the production of tritium using TPBARs to initiate the CLWR Tritium Program prior to the completion of the Watts Bar Demonstration Project. That project, referred to by DOE as the Lead Test Assembly demonstration, has a stated purpose to provide confidence to regulators and the public that tritium production in a commercial light water reactor is straightforward and safe. Preliminary data from the Lead Test Assembly demonstration supports DOE's preliminary conclusion that tritium production in a CLWR is straightforward and safe.
<b>Miscellaneous</b>		
Tritium should be redesignated as a special nuclear material to ensure that it is treated the same as all other materials that are critical for nuclear weapons production.	1	The issue of reclassifying tritium as a special nuclear material is beyond the scope of the EIS. However, Section 51 of the Atomic Energy Act authorizes the NRC to determine whether a material should be classified as "special nuclear material." To date, neither the NRC, nor any of its predecessor agencies, have ever determined that tritium should be classified as a special nuclear material in accordance with the criteria spelled out in Section 51 of the Atomic Energy Act.
What is the possibility of burning mixed oxide fuel at Bellefonte?	8	TVA officials stated at the public scoping meeting in Evensville, Tennessee, on February 26, 1998, that TVA has no intention of burning mixed oxide fuel at any TVA reactor that would be utilized for tritium production. Consequently, the potential impacts associated with producing tritium while also burning mixed oxide fuel are not reasonably foreseeable.

<i>Issues</i>	<i>No. of Comments</i>	<i>DOE Responses</i>
The fairness and adequacy of the procurement process for tritium production appears questionable.	6	The CLWR procurement process was based on the policy of full and open competition and has been conducted in accordance with all applicable laws. The procurement process was open to all owners/operators of pressurized CLWRs. The proposals from TVA for producing tritium using existing and partially completed reactors were the only bids determined to be responsive to the requirements contained in the request for proposals.
The contractors hired to work on this project should be U.S. citizens, and the public should have oversight responsibilities for their qualifications and experience.	1	The nationality and qualifications of contractors, as well as their oversight, are issues beyond the scope of the EIS. However, all work associated with the CLWR Program will comply with all applicable laws and regulations.
The information materials used to prepare this EIS are inadequate and are not conveniently available to the public.	4	The analysis, dissemination of information, and the inclusion of public participation for the CLWR EIS is conducted in accordance with Council on Environmental Quality regulations (40 CFR 1500-1508), and DOE's NEPA regulations (10 CFR 1021) and procedures. DOE has acted in accordance with these requirements, making a good faith effort to disseminate factsheets explaining the issues associated with tritium production, holding meetings with community groups and the media, holding more than the required number of public scoping meetings, and in addressing all questions put to DOE on such issues.
The following information should be declassified because it is relevant to this EIS and the public should have access to it: (1) the amount of tritium currently in the U.S. arsenal, (2) the size of current reserve stockpiles of tritium, (3) the total number of nuclear weapons assumed to be in the U.S. arsenal between 2011 and 2015, and (4) projected amounts that must be produced annually to maintain the nuclear arsenal after 2015.	1	The CLWR EIS has been prepared based on unclassified information. To the extent possible, the EIS provides unclassified information as a substitute for classified information that cannot be disseminated. The classification of information and the potential for the declassification of information within the control of DOE is outside of the scope of the CLWR EIS. Information such as the existing amount of tritium in the national stockpile of nuclear weapons, the exact number and make-up of nuclear weapons in the stockpile, and the exact number of nuclear weapons which are expected to be in the U.S. arsenal in future years is critical to U.S. national security and cannot be disclosed.
The EIS should evaluate the dangers and impacts of maintaining a nuclear weapons stockpile and the possible explosion of a nuclear warhead.	5	The environmental impacts associated with maintaining a nuclear weapons stockpile are assessed in DOE's Stockpile Stewardship and Management Programmatic EIS (DOE 1996). The environmental impacts associated with the possible explosion of a nuclear warhead are speculative and beyond the scope of the CLWR EIS.
In addition to evaluating the physical and social environments, the EIS should look at the moral and ethical issues related to continuing the production of nuclear weapons.	6	Moral and ethical issues are beyond the scope of the EIS.

START = Strategic Arms Reduction Treaty

#### F.4 REFERENCES

DOE (U.S. Department of Energy), 1995, *Final Programmatic Environmental Impact Statement for Tritium Supply and Recycling*, DOE/EIS-0161, Office of Reconfiguration, Washington, DC, October 19.

DOE (U.S. Department of Energy), 1996, *Final Programmatic Environmental Impact Statement for Stockpile Stewardship and Management*, DOE/EIS-0236, September.

| DOE (U.S. Department of Energy), 1998, *Draft Environmental Impact Statement, Construction and Operation of a Tritium Extraction Facility at the Savannah River Site*, DOE/EIS-0271D, Savannah River Operations Office, Aiken, South Carolina, May.

| DOE (U.S. Department of Energy), 1999, *Final Environmental Impact Statement, Construction and Operation of a Tritium Extraction Facility at the Savannah River Site*, DOE/EIS-0271F, Savannah River Operations Office, Aiken, South Carolina, to be published March 1999.